

REMARKS

This REPLACEMENT SUBSTITUTE AMENDMENT corrects the incorrect numbering of claims as previously presented. Please substitute NEW claims 39-74 for the original (now cancelled) claims 1-38 of this application. The present application is a NATIONAL STAGE filing in the United States Patent Office of a Patent Cooperation treaty application PCT/US03/01746, FILED JANUARY 21, 2003. This is a PRELIMINARY AMENDMENT to place in consideration claims that have been amended and prosecuted in applications pending in other foreign Patent Offices; in at least one case these claims have been allowed and a patent will be granted.

In at least one foreign application an Examiner has cited three documents in the examination of the claims of this application:

D1: DE 32 22 235 A1 (SALZGITTER MASCHINEN UND ANLAGEN AG) 15 December 1983 (1983-12-15)

D2: DE 200 19 721 U1 (FAUDI FILTERSYSTEME GMBH) 8 March 2001 (2001-03-08)

D3: US-A-4 358 383 (ASP ET AL) 9 November 1982 (1982-11-09)

In one foreign application an Examiner has asserted that independent claim 39 does not meet the requirements of patentability, because the subject-matter of claim 39 is not new. That Examiner has applied the recitations of new claim 39 to the disclosure of D1 (and also D2, D3) asserting that the steps of that claim are disclosed in the cited reference. New claim 39 was resubmitted with distinguishing recitations that are believed to overcome the Examiner's assertions. Consideration is requested.

Claim 39, as now submitted, establishes the invention as a method for operating a pressure filter having movable plates that are moved relative to each other to form a filtration chamber with a

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2 filter medium disposed between the continuously mating surfaces of the movable plates. The
3 method being claimed is the operation of that filter wherein a slurry is introduced into the filtration
4 chamber after it has been close with the filter medium between the continuously mating surfaces of
5 the plates that form the filtration chamber. The filter medium is completely sealed within the
6 filtration chamber so as to collect solids from the slurry while the liquids are forced out of the
7 filtration chamber. The separation process is accomplished by introducing a hot gas fluid into the
8 filtration chamber to form the desired dry filter cake on the filter medium. The filtration chamber is
9 then opened and the filter medium is moved through the open chamber carrying the dry filter cake to
10 a discharge location..

11 The D1 reference does not have a single filtration chamber and does not dispose a filter
12 medium completely between continuously mating surfaces of filter plates that form the filtration
13 chamber. The steps of the method for operating the pressure filter apparatus are in a sequence that
14 provides for the efficient separation of solids and liquids in a slurry introduced into the filtration
15 chamber. The D1 reference has a filter medium that is not in a sealing relationship with surfaces of
16 mating elements and thus can permit slurry solids to escape with extracted fluids around the edges of
17 the medium. Further the D1 disclosure requires several opening and closing operations as the slurry
18 is transported through the several chamber of the apparatus as distinguished from the claimed
19 operation in a completely sealed chamber wherein several treatment operations are performed. That
20 Examiner asserted that the disclosure includes the introduction of HOT GAS; however, there is no
21 mention of the introduced gas as being HOT or being HEATED. The gas introduced in the D1
22 reference is merely to dry the filter cake, NOT a functional part of the METHOD being claimed and
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2 participating in the desired separation of the liquids from the solids in the slurry.

3 The documents D2 and D3 do not disclose a sealable filter chamber with a MOVABLE filter
4 medium, and the suggested uses of gas in those disclosures is merely to force collected solids off of
5 a filter surface by passing air or gas along the surface of the medium. D2 and D3 do not overcome
6 the missing disclosure of the document D1.

7 It is therefore asserted that the claimed invention in NEW claims 39-74 is NEW and
8 therefore patentable. Favorable consideration of these new claims by the U.S. Examiner is
9 respectfully requested.

10 An Examiner in a foreign application has asserted that former Independent claim 22, now
11 NEW 60 does not meet the patentability requirement because the subject-matter of claim 60 is not
12 new. That Examiner applies the disclosure of D2 (also D1, D3) and asserts that there is a disclosure
13 of apparatus for separating a slurry into slurry liquid and slurry solids having the elements of claim
14 60.

15 Claim 60 claims the structure of a filtration chamber formed with continuously mating
16 surfaces of upper and lower plates with a filter medium disposed between the continuously mating
17 surfaces when the plates are closed. The apparatus includes the source of slurry, the source of
18 pressurizeable fluid, the separate valving means, the means for controlling the opening and closing
19 of the plates forming the filtration chamber, and the means for controlling the movement of the filter
20 medium through the filtration chamber for discharging a slurry solids filter cake when a filtration
21 operation has been completed. The disclosure of the D2 reference does not include an openable and
22 closeable filtration chamber with a filter medium disposed between mating surfaces of a chamber
23 and, further, uses fluid materials passing

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2 along the exterior surface of a filter medium only to remove collected solids on that surface. The
3 lack of disclosure in D2 is not overcome with the addition of D1 or D3 for the reasons stated with
4 respect to amended claim 1.

5 It is respectfully asserted that claim 60 claims a new and therefore patentable structure.

6 In another section of an examination a foreign Examiner has asserted that the dependent
7 claims do not appear to contain any additional features which, in combination with the features of
8 any claim to which they refer, add novelty and inventive step. It has been respectfully asserted in
9 those foreign applications that the claims depend from independent claims that recite structural
10 and/or method steps that are not found in cited disclosures and each dependent claim adds additional
11 steps or structure that is disclosed in the specification. The feature of a sealable filtration chamber
12 that can be pressurizable to accommodate high pressure fluids and high temperature fluids without
13 damage to the slurry being filtered or to the separated liquids or solids from the slurry is not
14 disclosed in any of the reference selected by the foreign Examiner.

15 The method claims depending from claim 39 add steps in the method as claimed in claim 39
16 that permit the apparatus to perform slurry separations with efficiency and in a shorter time period,
17 and permit the formation and movement of a substantially dry filter cake from the filtration chamber.

18 The dependent apparatus claims add further distinguishing features or structures to the
19 claimed structure of claim 60 that distinguish the apparatus disclosed in this application from the
20 disclosures of the references D1, D2 and D3.

21 While the foregoing comments are directed to an examination of an application in another
22 Patent Office where different grounds for patentability might exist, the references cited in that
23 examination are the same references that were developed in the initial preliminary search report.

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2 The comments here presented are intended to avoid protracted prosecution of this application and to
3 give an initial evaluation of the references that have been cited. The US Examiner is requested to
4 consider the foregoing comments in this examination of this application.

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Respectfully submitted

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